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1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:
  - 5 a) a nucleotide sequence encoding the IGS3 polypeptide according to SEQ ID NO: 2;
  - b) a nucleotide sequence encoding the polypeptide encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands), in particular a nucleotide  
10 sequence corresponding to the SEQ ID NO: 1;
  - c) a nucleotide sequence having at least 80 % (preferably at least 90%) sequence identity over its entire length to the nucleotide sequence of (a) or (b);
  - d) a nucleotide sequence which is complimentary to the nucleotide sequence of (a) or (b) or (c).
- 15 2. The polynucleotide of claim 1 wherein said polynucleotide comprises the nucleotide sequence contained in SEQ ID NO:1 encoding the IGS3 polypeptide of SEQ ID NO:2.
3. The polynucleotide of claim 1 wherein said polynucleotide comprises a nucleotide  
20 sequence that is at least 80% identical to that of SEQ ID NO:1 over its entire length.
4. The polynucleotide of claim 3 which is the polynucleotide of SEQ ID NO:1.

5. (Amended) The polynucleotide of claim 1, which is DNA or RNA.
6. A DNA or RNA molecule comprising an expression vector, wherein said expression vector is capable of producing an IGS3 polypeptide comprising an amino acid sequence, which has at least 80% identity with the polypeptide of SEQ ID NO:2 when said expression vector is present in a compatible host cell.
- 30 7. A host cell comprising the expression vector of claim 6.
8. A host cell according to claim 7 which is a yeast cell.
- 35 9. A host cell according to claim 7 which is an animal cell.
10. (Amended) IGS3 receptor membrane preparation derived from a cell according to claim 7.

--25. A composition for the preparation of a medicament for the treatment of a subject suffering from a disease related to expression or activity of an IGS3 polypeptide receptor, in need of enhanced activity or expression of the IGS3 polypeptide receptor of SEQ ID NO:2, or the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands) or an

IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences, said composition comprising:

(a) a therapeutically effective amount of an agonist to the IGS3 polypeptide receptor selected from the group consisting of

- (1) SEQ ID NO:2;
- (2) the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands); and

(3) an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences; and/or

(b) an isolated polynucleotide comprising a sequence selected from the group consisting of:

- (1) the nucleotide sequence of SEQ ID NO:1;
- (2) the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands);
- (3) a nucleotide sequence that has at least 80% identity to either of said nucleotide sequences; and
- (4) a nucleotide sequence complementary to said nucleotide sequences in a form as to effect production of said receptor in vivo.

26. A composition for the preparation of a medicament for the treatment of a subject suffering from a disease related to expression or activity of the IGS3 receptor polypeptide, having need to inhibit activity or expression of the IGS3 polypeptide receptor of SEQ ID:2 or the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands) or an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences, said composition comprising at least one element selected from the group consisting of:

(a) a therapeutically effective amount of an antagonist to the IGS3 polypeptide receptor of SEQ ID NO:2 or the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands) or an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequence;

(b) a nucleic acid molecule that inhibits the expression of the nucleotide sequence encoding the IGS3 polypeptide receptor of SEQ ID:2 or the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands) or an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences; and

(c) a therapeutically effective amount of a polypeptide that competes for its ligand with the IGS3 receptor of SEQ ID NO:2 or the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands) or an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences.

27. The composition according to claim 25, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.

28. The composition according to claim 26, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.

29. A medicament for the treatment of irritable bowel syndrome comprising at least one element selected from the group consisting of an IGS3 receptor agonist compound and antagonist compound.

30. The composition of claim 25, with the proviso that said agonist is not otilonium bromide.
31. The composition of claim 30, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.
32. The medicament of claim 29, with the proviso that said agonist compound is not otilonium bromide.
33. An assay for the identification of compounds for the treatment of irritable bowel syndrome comprising an element selected from the group consisting of:
  - (a) the IGS3 receptor of SEQ ID NO:2
  - (b) the polypeptide having the amino acid sequence encoded by the DNA insert contained in the deposit no. CBS 102196 at the Centraalbureau voor Schimmelcultures at Baarn (The Netherlands); and
  - (c) an IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to either of said amino acid sequences.
34. The method according to claim 16, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.
35. The method according to claim 17, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.
36. The method according to claim 16, with the proviso that said agonist is not otilonium bromide.
37. The method according to claim 36, wherein the disease related to expression or activity of the IGS3 receptor polypeptide is irritable bowel syndrome.--

--38. The isolated polynucleotide according to claim 1, which itself, and/or the protein encoded by said polynucleotide, plays a role in irritable bowel syndrome.

39. The isolated polynucleotide according to claim 1, which itself, and/or the protein encoded by said polynucleotide, is used in diagnosing, preventing, ameliorating or correcting irritable bowel syndrome.---